

What is claimed is:

1. Form II of (-)-cis-2-(2-chlorophenyl)-5,7-dihydroxy-8[4R-(3S-hydroxy-1-methyl)piperidinyl]-4H-1-benzopyran-4-one.

5

2. Form II of (-)-cis-2-(2-chlorophenyl)-5,7-dihydroxy-8[4R-(3S-hydroxy-1-methyl)piperidinyl]-4H-1-benzopyran-4-one, wherein Form II is characterized by the following x-ray powder diffraction pattern, obtained using Cu K-alpha radiation:

D Space- Å

10

12.763

6.389

3.194

13.244

4.259.

15

3. Form II of (-)-cis-2-(2-chlorophenyl)-5,7-dihydroxy-8[4R-(3S-hydroxy-1-methyl)piperidinyl]-4H-1-benzopyran-4-one, wherein Form II is characterized by the following x-ray powder diffraction pattern, obtained using Cu K-alpha radiation:

D Space- Å	Relative Intensity
12.763	Strong
6.389	Medium
3.194	Weak
13.244	Weak
4.259	Weak
12.036	Weak
2.824	Weak
8.659	Weak
6.012	Weak
5.397	Weak
3.447	Weak.

4. Form II of (-)-cis-2-(2-chlorophenyl)-5,7-dihydroxy-8[4R-(3S-hydroxy-1-methyl)piperidiny]-4H-1-benzopyran-4-one, wherein Form II is characterized by the following x-ray powder diffraction pattern, obtained using Cu K-alpha radiation:

2 Theta Angle (°)	D Space- Å	Relative Intensity	Relative Intensity (%)
6.920	12.763	Strong	100.0
13.850	6.389	Medium	35.7
27.908	3.194	Weak	22.2
6.669	13.244	Weak	18.0
20.838	4.259	Weak	13.8
7.339	12.036	Weak	13.8
31.660	2.824	Weak	9.5
10.208	8.659	Weak	8.3
14.722	6.012	Weak	7.2
16.413	5.397	Weak	6.9
25.829	3.447	Weak	6.5

5. A process for the preparation of Form II of (-)-cis-2-(2-chlorophenyl)-5,7-dihydroxy-8[4R-(3S-hydroxy-1-methyl)piperidiny]-4H-1-benzopyran-4-one, comprising the following steps:

- a) dissolving a sufficient amount of (-)-cis-2-(2-chlorophenyl)-5,7-dihydroxy-8[4R-(3S-hydroxy-1-methyl)piperidiny]-4H-1-benzopyran-4-one hydrochloride in a sufficient amount of ethanol thus forming a mixture,
- b) heating the mixture to about 50 to about 80° C,
- c) optionally filtering off undissolved material from the mixture, thus forming a solution,
- d) concentrating the solution until about 50 to about 90% of the volatiles are removed,
- e) cooling the solution and optionally isolating the obtained (-)-cis-2-(2-chlorophenyl)-5,7-dihydroxy-8[4R-(3S-hydroxy-1-methyl)piperidiny]-4H-1-benzopyran-4-one hydrochloride crystals, and
- f) optionally drying the obtained crystals.

6. The process of claim 5 wherein the cooling of the solution is to about 0 to about 10° C.

7. Form II of (-)-cis-2-(2-chlorophenyl)-5,7-dihydroxy-8[4R-(3S-hydroxy-1-methyl)piperidiny]-4H-1-benzopyran-4-one, prepared by the process of the following steps:

a) dissolving a sufficient amount of (-)-cis-2-(2-chlorophenyl)-5,7-dihydroxy-8[4R-(3S-hydroxy-1-methyl)piperidiny]-4H-1-benzopyran-4-one hydrochloride in a sufficient amount of ethanol thus forming a mixture,

b) heating the mixture to about 50 to about 80° C,

c) optionally filtering off undissolved material from the mixture, thus forming a solution,

d) concentrating the solution until about 50 to about 90% of the volatiles are removed,

e) cooling the solution and optionally isolating the obtained (-)-cis-2-(2-chlorophenyl)-5,7-dihydroxy-8[4R-(3S-hydroxy-1-methyl)piperidiny]-4H-1-benzopyran-4-one hydrochloride crystals, and

f) optionally drying the obtained crystals.

8. A pharmaceutical composition comprising a therapeutically effective amount of Form II of (-)-cis-2-(2-chlorophenyl)-5,7-dihydroxy-8[4R-(3S-hydroxy-1-methyl)piperidiny]-4H-1-benzopyran-4-one and a pharmaceutically acceptable carrier.

9. A method of treating a patient for cancer by administering to the patient in need of such therapy a therapeutically effective amount of Form II of claims 1, 2 3, or 4.